
ENGINEERING STANDARDS UPDATE

[Standards are serious business](#), but this newsletter isn't.

Topics this month:

- **Training & Qualification**
- **LANL Standards Issued in June or so**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

The LANL Engineering Standards: <http://engstandards.lanl.gov/>

With the new PBS "Chasing the Moon" special starting, this is a timely tidbit from NIST:

TO THE MOON AND BACK ... IN 2.5 SECONDS!

With the 50th anniversary of the Apollo 11 Moon landing on July 20, did you know about the out-of-this-world measurement-science idea that became a reality that day? A laser-based method to determine the distance to the Moon was conceived by Jim Faller, now a fellow adjunct at JILA, the Boulder, Colorado, physics laboratory jointly operated by NIST and the University of Colorado. Find out more about this [here](#).

TRAINING & QUALIFICATION

Two topics:

1. **Swagelok Training (the only compression fittings we use)**

From our Swagelok Southwest Account Manager:

Below is a quick summary of the classes but you can find more information on each class on our [LANL Swagelok Resource Center](#) page or in the links for the individual classes below. We are limited to 10 for the upcoming Essentials class in Albuquerque and 16 for the Day of Training in Los Alamos. Seats are available on a first-come, first-serve basis. Just email me to reserve a spot. Randy Huggard randy.huggard@swagelok.com / 505.379.7300

July 16 at our office down in Albuquerque (2732 Vassar Pl. NE, Ste. A, Albuquerque, NM 87107): 1-day, in-depth and hands-on [Swagelok Essentials Class](#) with half of the day dedicated to Tube Fitting Installation Essentials and the other half to Tube Bending Essentials. There is a **\$500 fee** for this class but it goes much more in depth (particularly for installation) into tube fittings and bending than our other class. [Register Now](#)

July 23 and July 24 at the Holiday Inn (60 Entrada Dr, Los Alamos, NM 87544): We are offering our [Swagelok Day of Training](#) in Los Alamos which will cover many topics including Swagelok tube fittings, VCR fittings, pipefittings, valve selection, hose safety, regulator selection, and basic tube bending. Attend on either July 23 or July 24. This is a **free class** in support of the labs. This class does not go as deep in the individual subjects as Swagelok Essentials but gives the student a good introduction to the topics with some hands-on included. [Register Now](#)

Also, I am usually up in Los Alamos on Wednesdays and often on Thursdays and can provide field consultation, demo of material, training, and technical support.

2. Electrical Standards – Wed, Aug 7 WRTC 112

Four-hour course [17998](#) covers the electrical engineering standards in Chapter 7 of the LANL Engineering Standards Manual and discusses mandatory requirements and good practices for those involved in electrical design. Strongly suggested for electrical designers, electrical engineers, electrical safety officers, and facility managers. AEs are also encouraged to attend. Taught by Electrical Standards POC Eric Stromberg from 7:30–11:30 am, at White Rock Training Center TA-00-1308 Rm 112. Also planned for 11/14.

REGISTERING for UTrain Courses: Go to [UTrain](#), search on course, select and enroll. Disenroll if you have to bail. AEs can also register; use token (CryptoCard) or contact ES T&Q coordinator Yolanda Trujillo at 665-5696 or yjtrujillo@lanl.gov with Z number.

LANL STANDARDS ISSUED IN JUNE OR SO

Engineering Standards Manual ESM [STD-342-100](#)

Chapter	Section	Title	Date
Ch 2 Fire Protection		Errata file for IFC hardcopies updated. ESM Ch 1 Section Z10 says "Errata (correct errors) to any document...are mandatory regardless of contract award date or code of record."	7/9/19
Ch 3	G30, Site Civil / Mechanical Utilities	Posted VAR-10251, Lift Station Placement. Thanks to Jake Hilderbrand, Alt. POC Josh Begay.	6/11/19
Ch 13 Welding, Joining, & NDE	Vol 6, NDE Procedures, Leak Testing Method	Posted as ref: Helium Leak Testing of Gloveboxes using Detector and Tracer Probe Methods (TA-55)	
Ch 14 Sustainable Design		Added NREL Site Operations Smart Labs Design Guidelines; updated LCC guide link	
Ch 17, Pressure Safety	ADMIN-2, Design, Documentation, and Records	Added new form ADMIN-2-Form-3C-HP-R0 for B31.3 high pressure components under Unlisted Components Approval Process and Forms . Thanks to POC Ari Ben Swartz.	6/10/19

Master Specs [STD-342-200](#)

Spec Number	Spec Title	Summary of latest Revision
08 7100 R5	Door Hardware	Changed 1.5.D to 1.5.C.8 to clarify/correct intent. Thanks to POC Scott Richardson.
13 4713 R0	Cathodic Protection	Initial issue!!! Thanks to POC Michael Ladach, Misha Gallegos.
23 3225 R3	Bag-in Bag-out Housings	Added Design and Performance Requirement and other general articles; changed Submittals to Action Submittals and revised/expanded; expanded "Quality Assurance"; added Warranty article; updated product information in Part 2; added "Structural Capability Test"; updated Differential Pressure Gage manifold information; updated Endnotes. Thanks to SME Scott Salisbury, POC Michael Ladach.
33 0530 R0	Coatings and Linings for Utilities	Initial issue!!! Thanks to POC Michael Ladach, Misha Gallegos.



DOE TECHNICAL STANDARDS ACTION

Tech Stds Program [postings](#) in the past month:

DOE-STD-1175-2019, [Senior Technical Safety Manager Functional Area Qualification Standard](#) [for the Feds]

NATIONAL STANDARDS ACTION

LANL's [IHS](#) online codes & standards subscription reports these changes. We generally follow latest edition unless it conflicts technically with IBC-2015 or is not in project's code of record.

Document number: **ACI 355.2**

Publication Date: **6/1/2019**

Title: **Qualification of Post-Installed Mechanical Anchors in Concrete and Commentary**

Type of Change: **Complete Revision**

Document number: **IEEE NESCIR588**

Publication Date: **5/26/2019**

Title: **National Electrical Safety Code**

Type of Change: **Interpretation**

WHEN GOOD CONDUCT OF ENGINEERING ISN'T FOLLOWED

Folks, "block valve" is not referring to shimming a steam valve in the LDCC with a chunk of wood when the roller support is in the wrong place. I'm not wild about the paper tag and plastic zip tie either. We can do better. Thanks to Ari Swartz, Mike O'Neill, and Edwin Trujillo for the photo.



LAST MONTH'S UPDATE TOPICS

Miss an issue? The archive is at "[Monthly Update](#)" on the [Standards homepage](#). Last month's topics:

- **Farewell to Doug Volkman**
- **Training & Qualification – Act Now!**
- **LANL Standards Issued in May**
- **Engineering Processes News**
- **Hoisting, Lifting, and Rigging (HLR) Equipment Procurement Issues**
- **DOE Technical Standards Action**
- **National Standards Action**
- **When Good Conduct of Engineering Isn't Followed**

The views expressed in this email are not necessarily those of my employer.
To request a change to this newsletter's distribution, please contact me.

Tobin Oruch, Engineering Standards Mgr
Los Alamos Nat'l Lab, Conduct of Eng Program Office
(505) 665-8475 oruch@lanl.gov <http://engstandards.lanl.gov/>
Please consider the environment before printing this or any email